

Product Evaluation

SHU246 | 0622

Engineering Services Program

The following product has been evaluated for compliance with the wind loads specified in the International Residential Code (IRC) and the International Building Code (IBC).

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

For more information, contact TDI Engineering Services Program at (800) 248-6032.

Evaluation ID: SHU-246

Effective Date: June 1, 2022

Re-evaluation Date: June 2026

Product Name: Supernova Accordion Shutters

Manufacturer: National Approved Shutter Association
15701 SW 29th Street
Miramar, FL 33027
(786) 621-6706

General Description:

The Supernova accordion shutters are manufactured of extruded aluminum. The accordions shutters may use aluminum blades, Lexan blades, or a combination of aluminum and Lexan blades. The accordion shutter is a permanently mounted impact protection system. The shutters may be installed using several types of mounting conditions and may be secured to several types of substrates.

Limitations:

Design Drawings:

"Supernova Accordion Shutter Extruded Aluminum Accordion Shutter;" manufactured by National Approved Shutter Association LLC; Drawing No. 22-033; Sheets 1 thru 16; dated March 16, 2022; signed, sealed, and dated April 6, 2022 by Pedro Figueiredo, P.E. The stated drawings will be referred to as approved drawings in this report.

Accordion Configurations: The accordion shutters are installed as single span units.

Mounting Conditions: The accordion shutters may be installed using different mounting configurations. Refer to the approved drawings for specific mounting conditions.

Wall Construction: The accordion shutters may be secured to the following types of wall framing:

- Pre-cast concrete, cast-in-place concrete (minimum compressive strength required specified in drawings)
- Grout-filled concrete masonry units (CMU)
- Hollow concrete masonry units (CMU).
- Wood (minimum Southern Yellow Pine dimension lumber, S.G. = 0.55).
- Aluminum (minimum 1/8" thick; 6063-T6)
- Steel (minimum 1/8" thick; A36 steel)

Allowable Design Pressure: The allowable design pressure is a function of blade type, blade span, mounting condition, anchor type, and substrate. Refer to the approved drawings for the allowable design pressure. The maximum allowable design pressure is +/-160.0 psf.

Maximum Shutter Span: The maximum allowable blade span is 162". Refer to the approved drawings for allowable blade spans for specific configurations.

Maximum Width: The allowable shutter width is unlimited.

Minimum Separation from Glass: The shutter system is a non-porous impact protective system. There is no minimum separation of glazing. EXCEPTION: Shutters installed on essential facilities as defined in ASCE 7-16 must comply with the minimum separation of glass requirements specified on the approved drawings.

Impact Resistance: This accordion shutter assembly satisfies the Texas Department of Insurance's criteria for protection from windborne debris. The assembly passed Missile Level D specified in ASTM E 1996-14a. The assembly may be installed at any height on the structure as long as the design pressure rating for the assembly is not exceeded. For essential facilities, the assembly may not be installed below a height of 30 feet in Wind Zone 3 and may be installed at all heights in Wind Zone 2 as defined in ASTM E 1996-14a.

Product Identification: The shutter assembly has a permanent label (NAMI) that indicates the manufacturer (National Approved Shutter Association LLC); the name of the product (Supernova Accordion Shutter); the missile level (Missile Level D); the test standards: ASTM E 330; ASTM E 1886, ASTM E 1996; and the drawing number (22-033).

Compliance: The shutters comply with ASTM E 330-14, ASTM E 1886-13a, and ASTM E 1996-14a.

Installation:

General Installation Requirements: The accordion shutters must be installed in accordance with the manufacturer's installation instructions, the approved drawings, and this product evaluation report. Copies of the approved drawings must be available on the jobsite during inspection of the shutter assembly.

Anchorage: The accordion shutters must be assembled, installed, and anchored to the structure in accordance with the approved drawings. Anchorage of the accordion shutters to the structure must comply with the mounting conditions, fastener options, edge distances, and embedment depths specified on the approved drawings.

Note: Keep the manufacturer's installation instructions available on the job site during the installation. Use corrosion resistant fasteners as specified in the IRC and the IBC.